

Service Manual

Clock Radio Cassette Player

Radio Cassette
RC-X260

Colour

(K) Black Type



Area

Suffix for Model No.	Area	Colour
(EB)	Great Britain	(K)
(EG)	F.R.Germany & Italy	
(GN)	Oceania	

■ SPECIFICATIONS

General:

Power Requirement:	AC; 230~240V, 50Hz Battery; 9V (006P/6F22) for battery backup
Power Consumption:	11W
Power Output:	3.0 W (1.5W x 2)... (RMS max.)
Speaker:	8cm (3") x 2 PM Dynamic Speaker (8Ω)
Jack:	Output; Headphones; Ø3.5, 16~32Ω Input; MIC
Dimensions(WxHxD):	346 x 113 x 152mm (13 7/16" x 4 7/16" x 6")
Weight:	1.80 kg (3 lbs 15oz) without battery

Radio Section:

Radio Frequency Range:	FM; 88 ~ 108MHz AM; 525 ~ 1610kHz (EB/EG) AM; 525 ~ 1710kHz (GN)
Intermediate Frequency:	FM; 10.7MHz AM; 455kHz
Sensitivity:	FM; 21dB/50 mW output (EB/EG) FM; 20 dB/50 mW output (GN) (-3 dB Limit Sens.) AM; 50 dB/m/50 mW output

Tape Deck Section:

Frequency Response:	50 ~ 14000Hz (with normal tape)
Recording System:	AC bias, Magnet erase
Tape Speed:	4.8cm/s (1 7/8 ips)
Track System:	Stereo

Notes:

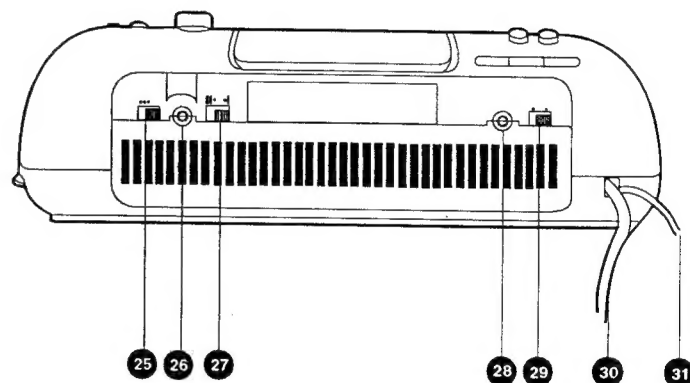
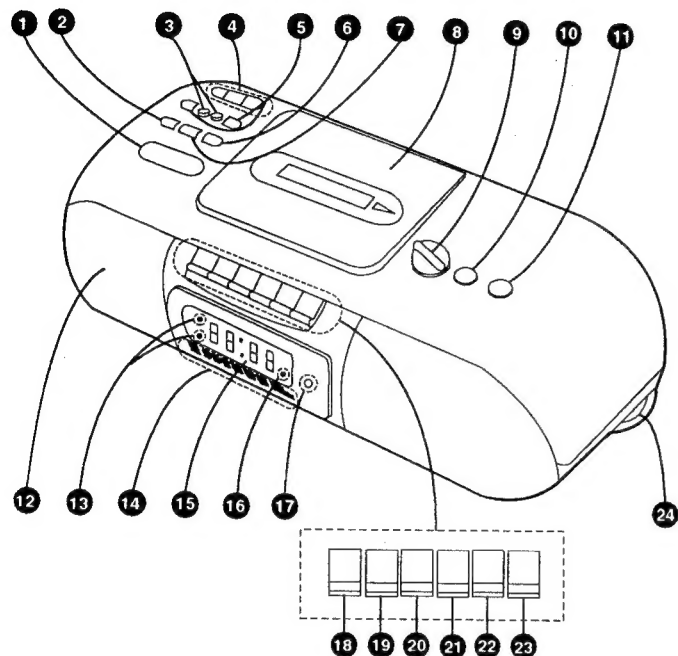
1. Weights and dimensions shown are approximate.
2. Design and specifications are subject to change without notice.

Panasonic

CONTENTS

	PAGE		PAGE
• LOCATION OF CONTROLS.....	2	• TERMINAL OF IC'S, TRANSISTORS & DIODES.....	15
• DISASSEMBLY INSTRUCTIONS.....	3 ~ 5	• CABINET PARTS LOCATION.....	16
• SCHEMATIC DIAGRAM.....	6 ~ 9	• REPLACEMENT PARTS LIST.....	17 ~ 19
• P.C.B & WIRING CONNECTION.....	10, 11	• MECHANISM PARTS LOCATION.....	20, 21
• FUNCTION OF IC TERMINALS.....	12	• MECHANISM PARTS LIST.....	22
• DESCRIPTION OF DISPLAY.....	12	• RESISTORS & CAPACITORS.....	23, 24
• MEASUREMENTS AND ADJUSTMENTS.....	13 ~ 15		

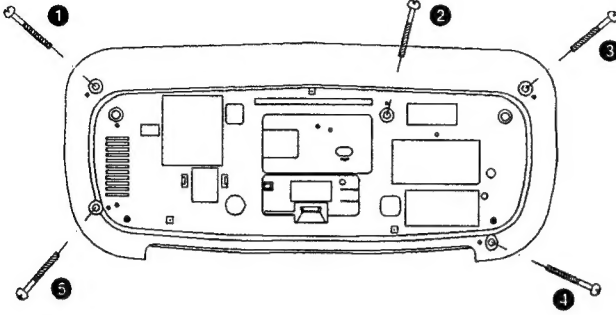
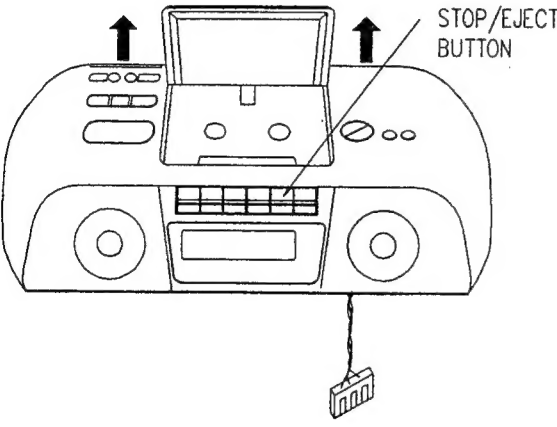
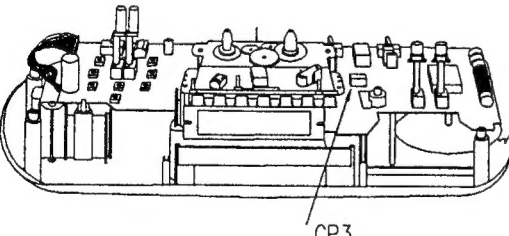
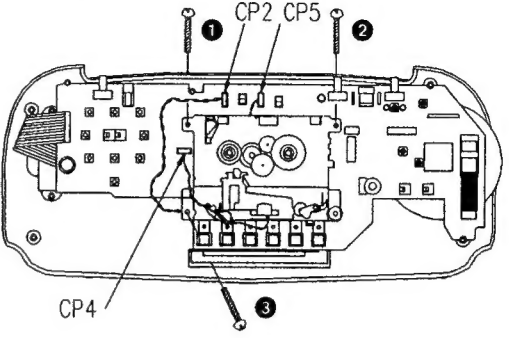
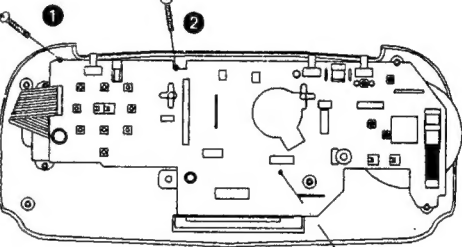
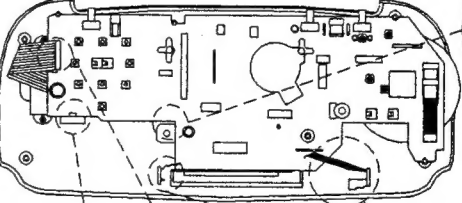
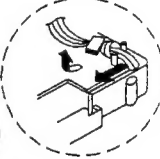
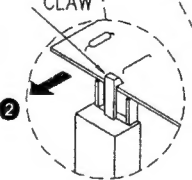
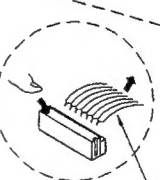
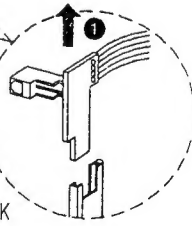
LOCATION OF CONTROLS

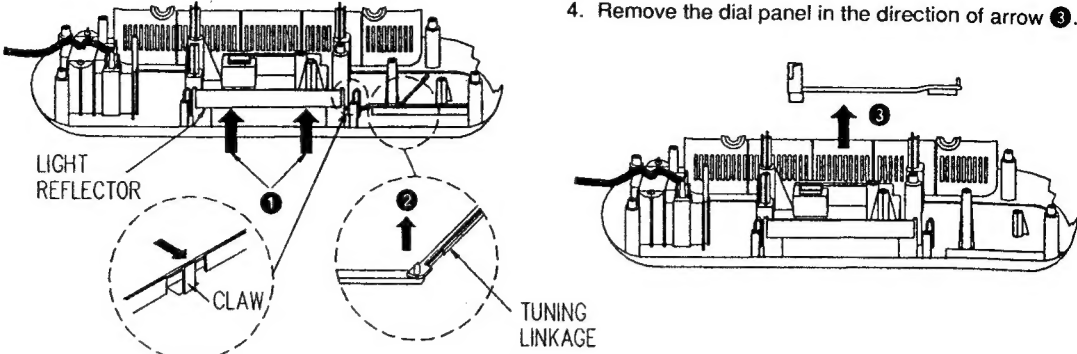
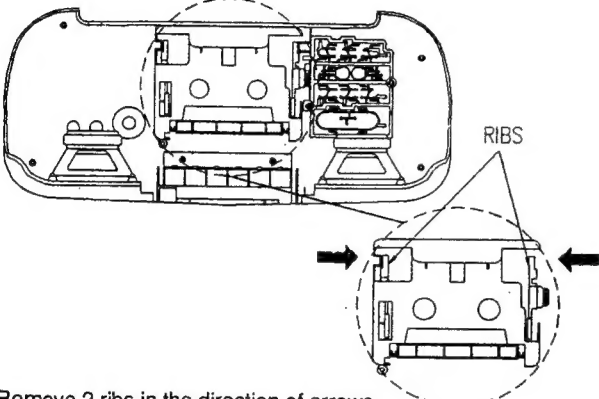
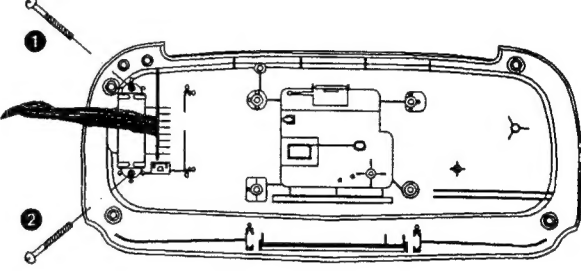
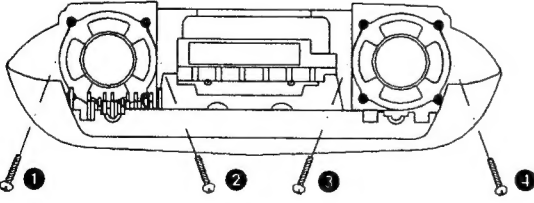
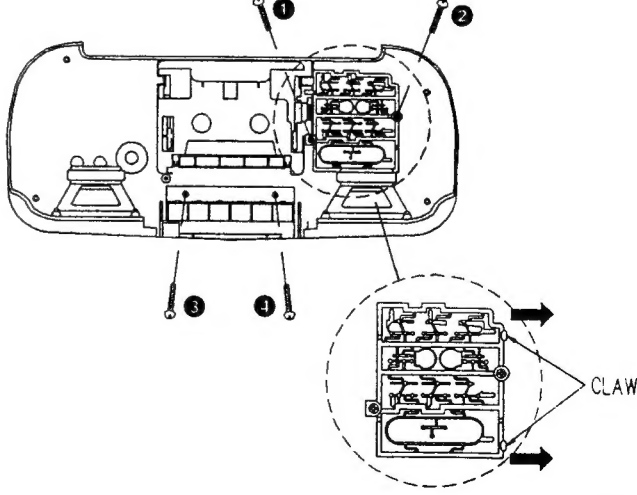


- 1 Doze button (DOZE)
- 2 Sleep button (SLEEP)
- 3 Alarm 1 and 2 select buttons
- 4 Time set buttons (TIME SET)
- 5 Alarm 1 and 2 display/adjust buttons (DISP/ADJ)
- 6 Radio button (RADIO)
- 7 Off/time set button (OFF TIME SET)
- 8 Cassette compartment cover
- 9 Volume control (VOLUME)
- 10 Ambience button (AMBIENCE)
- 11 XBS button (XBS)
- 12 Speakers
- 13 Alarm 1 and 2 Indicators
- 14 Radio dial display
- 15 Clock display
- 16 PM Indicator (For EB,GN only)

- 17 FM stereo indicator (FM ST)
- 18 Record button (RECORD)
- 19 Play button (PLAY)
- 20 Rewind/review button (REV)
- 21 Fastforward/cue button (CUE)
- 22 Stop/eject button (STOP/EJECT)
- 23 Pause button (PAUSE)
- 24 Tuning control (TUNING)
- 25 Band selector (BAND)
- 26 Headphones jack ()
- 27 Beatproof selector (BEATPROOF)
- 28 Microphone jack (MIC)
- 29 Brightness selector (BRIGHTNESS)
- 30 AC power cord
- 31 FM antenna cord

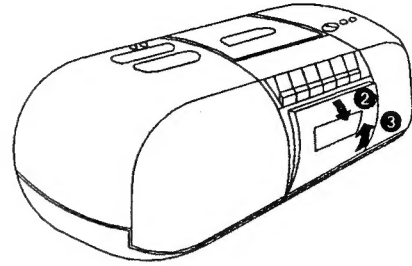
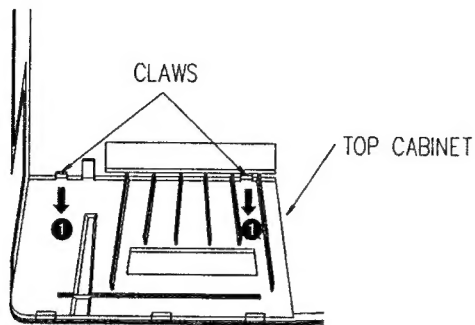
■ DISASSEMBLY INSTRUCTIONS

Ref. No. 1	Removal of the Upper Cabinet	Ref. No. 2	Removal of the Mechanism Unit
Procedure 1		Procedure 1 → 2	
 <p>1. Remove 5 screws (❶ ~ ❺).</p>   <p>2. Press the Stop/eject button. 3. Remove the upper cabinet in the direction of arrow. 4. Remove the connector (CP3).</p>		 <p>1. Remove 3 screws (❶ ~ ❸). 2. Remove 3 connectors (CP2, CP4, CP5).</p> <hr/> <p>Ref. No. 3</p> <p>Removal of the Main P.C.B.</p> <p>Procedure 1 → 2 → 3</p>       <p>1. Remove 3 screws (❶ ~ ❸). 2. Remove 2 L.E.D. P.C.B. in the direction of arrow ❶. 3. Release the black bond. 4. Release the claw in the direction of arrow ❷. 5. Release the battery wire.</p>	

<p>Ref. No. 4</p> <p>Procedure 1 → 2 → 3 → 4</p>	<p>Removal of the Dial Pointer</p>	<p>1. Remove the light reflector in the direction of arrow ①. 2. Remove the tuning linkage in the direction of arrow ②. 3. Release the claw. 4. Remove the dial panel in the direction of arrow ③.</p> 	
<p>Ref. No. 5</p> <p>Procedure 1 → 5</p>	<p>Removal of the Cassette Compartment</p>	<p>Ref. No. 6</p> <p>Procedure 1 → 2 → 3 → 6</p>	<p>Removal of the Power Transformer</p>
 <p>• Remove 2 ribs in the direction of arrows.</p>	 <p>1. Remove 2 screws (①, ②). 2. Remove the shield plate.</p>		
<p>Ref. No. 7</p> <p>Procedure 1 → 7</p>	<p>Removal of the Speaker</p>	<p>Ref. No. 8</p> <p>Procedure 1 → 8</p>	<p>Removal of the Function & Mechanism Buttons</p>
 <p>• Remove 4 screws (① ~ ④).</p>	 <p>CLAW</p>		<p>1. Remove 2 screws (①, ②). 2. Release 2 claws in the direction of arrow. 3. Remove the function buttons. 4. Remove 2 screws (③, ④). 5. Remove the mecha buttons.</p>

Ref. No.
9

Removal of the Dial Panel

Procedure
1 → 9

1. Release the claws in the direction of arrow ①.
2. Remove the dial panel in the direction of arrow ② & ③.

* To set the Dial pointer.

1. Move the dial pointer to max. position in the direction of arrow (Fig. 1).
2. Turn the tuning knob clockwise completely (Fig. 2).
3. Install the main P.C.B. (Fig. 3).

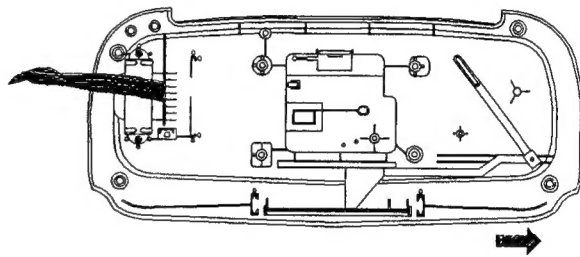


Fig. 1

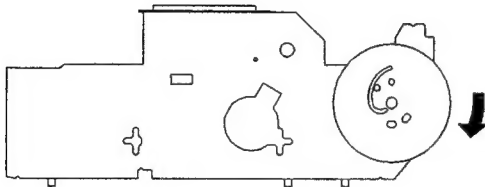


Fig. 2

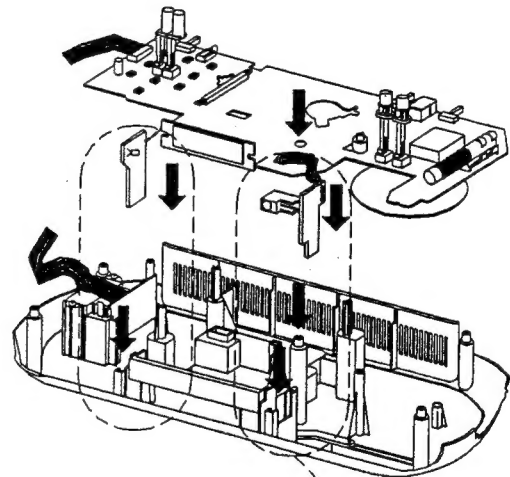
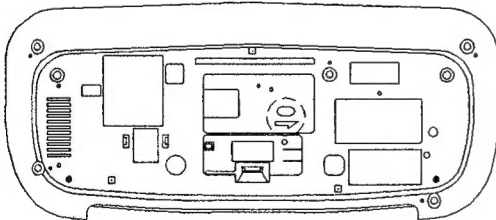



Fig. 3



When the tape is caught in the pinch roller, etc. Release the tape by turning the pulley on the motor with the screw driver in the direction of the arrow.

Notes :

- S1 : Time set switch. (REV)
- S2 : Time set switch. (FAST)
- S3 : Time set switch. (FWD)
- S4 : Alarm 1 display/adjustment switch. (DISP/ADJ)
- S5 : Alarm 2 display/adjustment switch. (DISP/ADJ)
- S6 : Sleep switch. (SLEEP)
- S7 : Off switch. ( TIME SET)
- S8 : Radio on switch. (RADIO)
- S9 : Doze switch. (DOZE)
- S10 : Alarm 1 in "OFF" position. (OF...OFF, T...TAPE/RADIO)
- S11 : Alarm 2 in "OFF" position. (OF...OFF, B...BUZZER)
- S12 : Ambience switch. (AMBIENCE)
- S13-1, 13-2 : Low boost switch in "ON" position. (ON...ON, OF...OFF)
- S14-1, 14-2 : Band select switch in "AM" position. (FM ST...FM STEREO, AM...AM, FM...FM)
- S15-1, 15-2 : Brightness select switch in "HIGH" position. (H...HIGH, L...LOW)
- S16 : Beatproof switch.
- S17-1~17-6 : Record/playback switch in "PLAYBACK" position. (P...PLAYBACK, R...RECORD)
- S18 : Motor switch
- VR1 : FM VCO adjustment VR.
- VR2 : Volume control VR.
- VR3 : Clock back-up osc control VR.


- DC voltage measurement are taken with electronic voltmeter. The negative terminal of the battery provides negative meter connection point.

No mark...Tape (playback) mode []...Tape (Recording) mode
< >...FM mode ()...AM mode

Battery Current :

Vol. min.....	50mA (RADIO)
.....	60mA (TAPE PLAYBACK)
Vol. max.....	70mA (RADIO)
.....	70mA (TAPE PLAYBACK)
Recording.....	60mA

Measurement instruction
Radio: FM 60dB, 30% MOD
AM 74dB/m, 30% MOD
Tape : 315Hz, 0dB

- Important safety notice :
Component identified by  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
- The schematic diagram may be modified at any the time with the development of new technology.

A MAIN CIRCUIT

SL204230TG.EG LED DISPLAY
SL204227TG.EB/GN

IC1 LM8562 CLOCK LSI

Q14 2SA564RTA SWITCHING

IC2 BA3312N PRE/REC AMP

IC4 AN7205 FM FRONT-END

IC5 2SC1684STA SWITCHING (BEAT PROOF)

Q8 2SC1684STA BIAS OSC

IC7 BU4066B SWITCHING

Q1 2SA952LTA POWER SUPPLY CONTROL

IC3 RV1BA6433 AMBIENCE

Q10, Q11 2SC1684STA LOW BOOST AMP

Q5 2SC2001KTA REGULATOR

Q6 2SA564RTA POWER SUPPLY

B POWER SUPPLY CIRCUIT

BACK-UP BATTERY "6F22" SIZE 9V

MOTOR

C FM FRONT-END

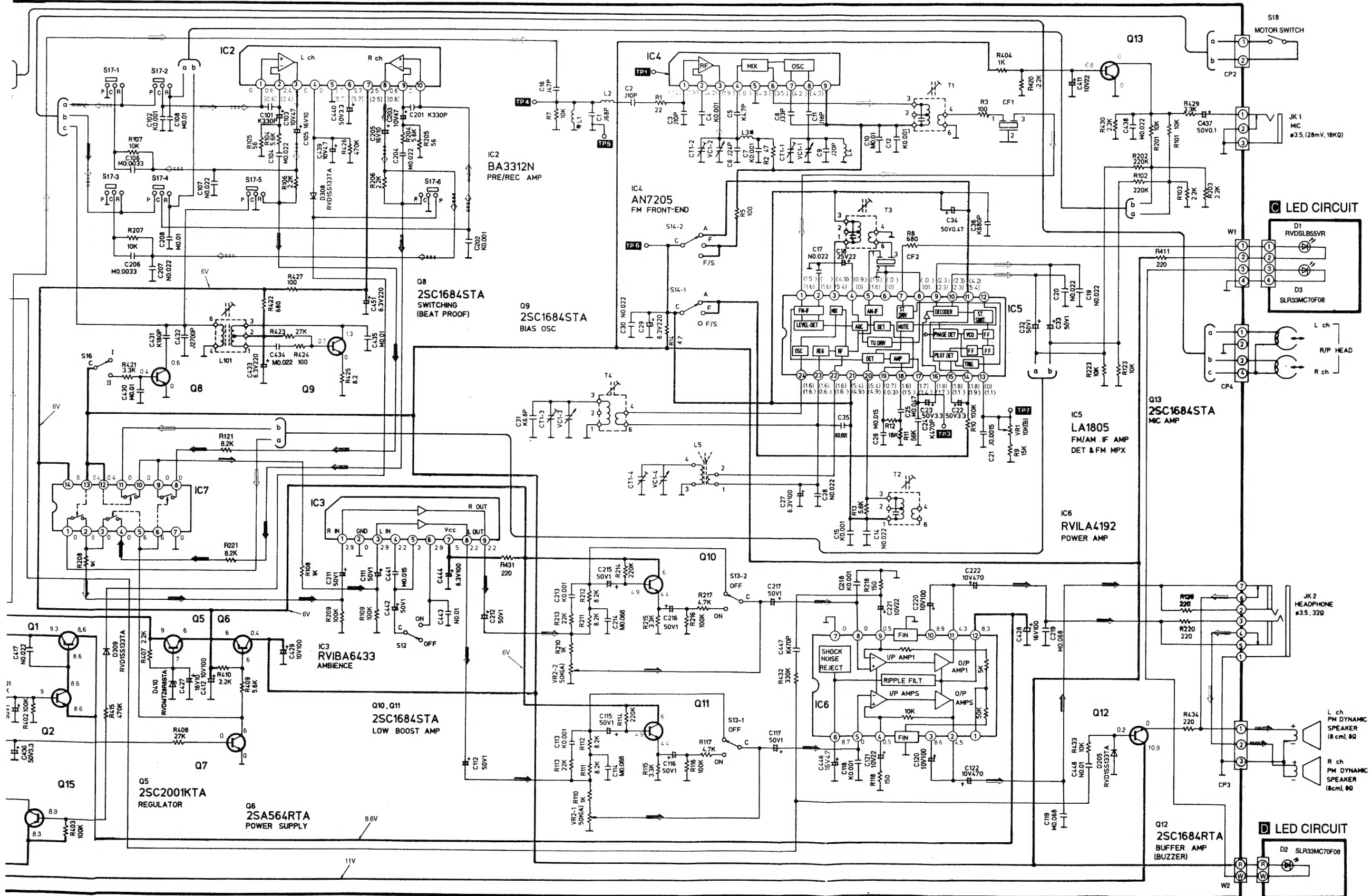
... FM SIGNAL LINE

... PLAYBACK SIGNAL LINE

... RECORD SIGNAL LINE

6 7 8 9 10 11 12 13 14

FM SIGNAL LINE ... PLAYBACK SIGNAL LINE ... RECORD SIGNAL LINE ... FM/PLAYBACK SIGNAL LINE ... +B LINE

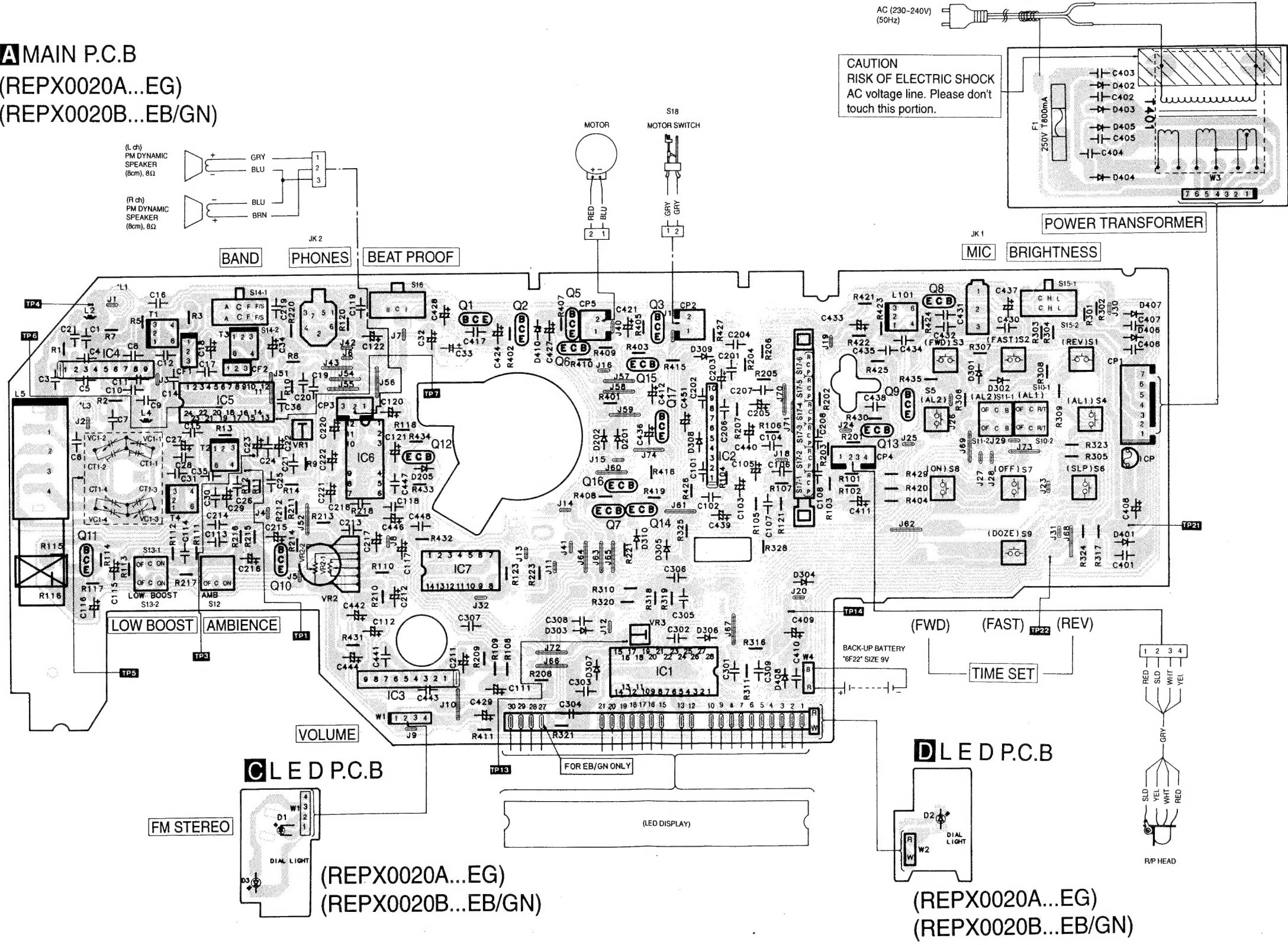


P.C.B. & WIRING CONNECTION

FL

A MAIN P.C.B
(REPX0020A...EG)
(REPX0020B...EB/GN)

B POWER SUPPLY P.C.B (REPX0020A...EG)
(REPX0020B...EB/GN)



IC1 (I

Pin No.
1
2
13
14
15
16
17
18
19

D

SI

SI

FUNCTION OF IC TERMINALS

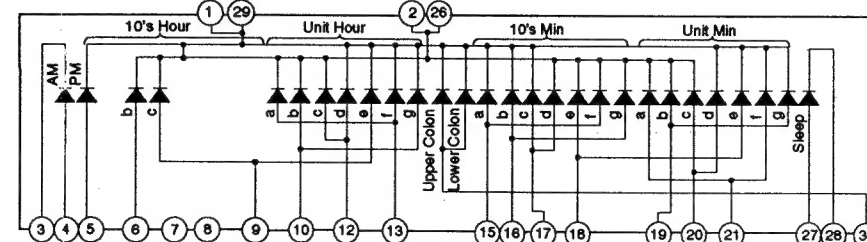
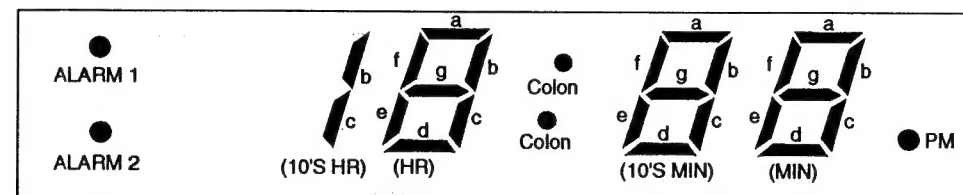
IC1 (LM8562)

Pin No.	Mark	I/O	Function
1	S0	—	
2	S1	O	Segment signal for LED Display
13	S12	O	
14	S13	—	
15	VSS	I	Power supply
16	CR OSC	O	Oscillating signal output (2.4KHz)
17	S P/D	I	Speed/power down signal select input
18	DC OUT	O	Radio on signal output
19	A1 OUT	O	Alarm 1 signal output

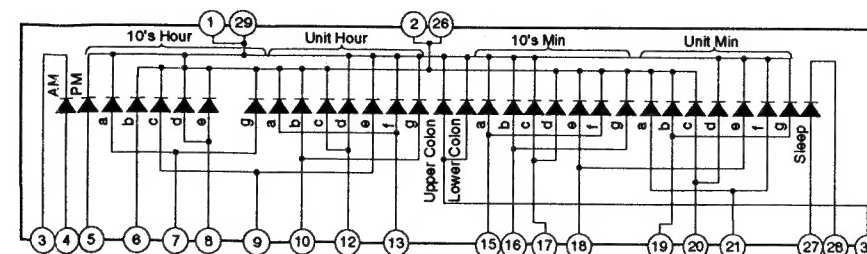
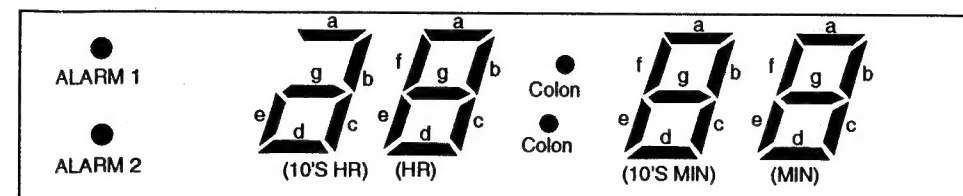
Pin No.	Mark	I/O	Function
20	A2 OUT	O	Alarm 2 signal output
21	A DSP	I	Alarm display signal select input
22	T SET IN	I	Time set input
23	ON/OFF	I	Radio ON/OFF signal select input
24	SLP/DOZ	I	Sleep/Doze signal select input
25	50/60	I	Input terminal for noise filter circuit
26	MODE	I	Mode selection input
27	TSET	I	Current time set input
28	VDD	—	GND

DESCRIPTION OF DISPLAY

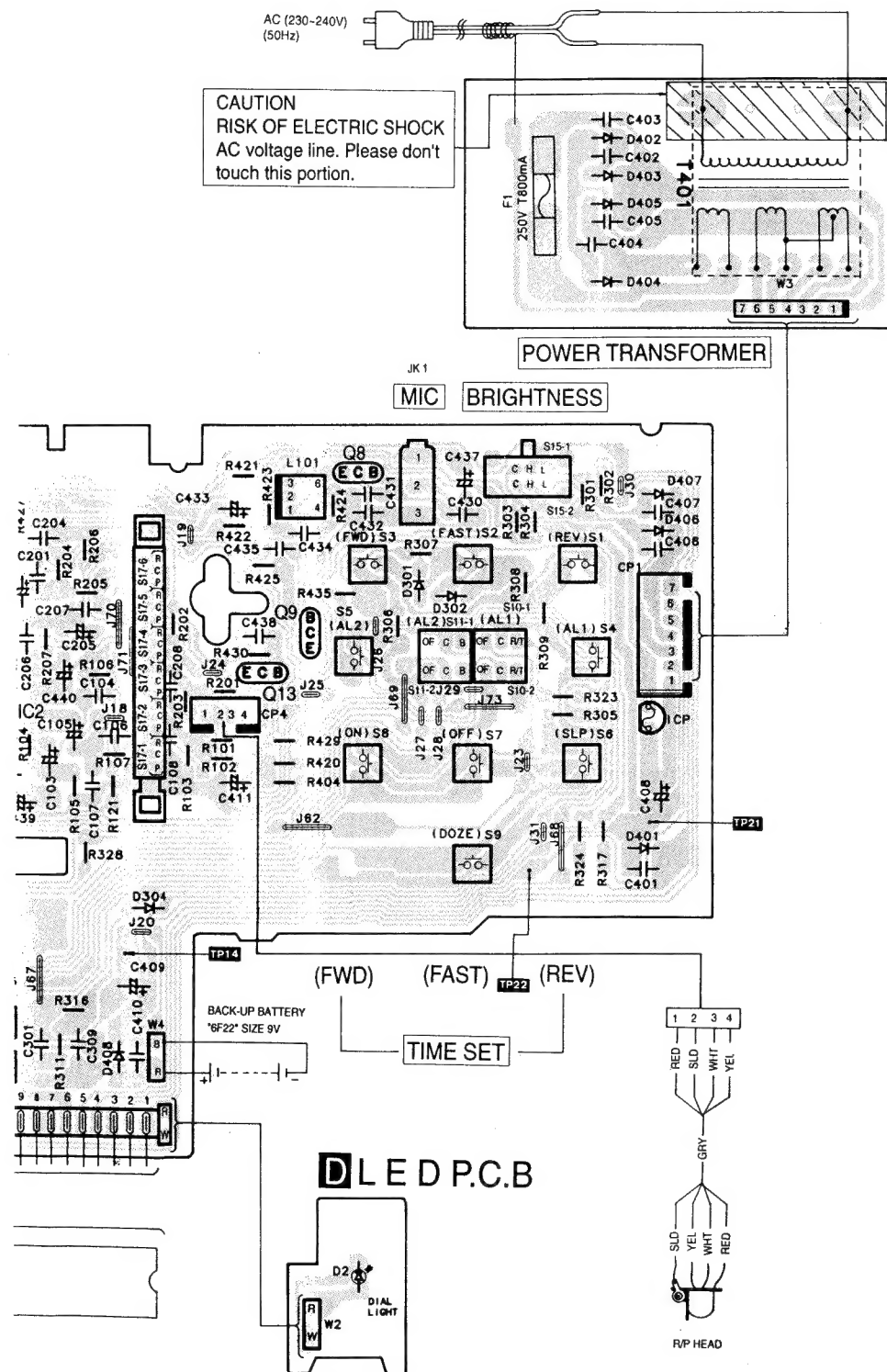
SL204227TG (For EB,GN only)



SL204230TG (For EG only)



B POWER SUPPLY P.C.B (REPX0020A...EG) (REPX0020B...EB/GN)



(REPX0020A...EG)
(REPX0020B...EB/GN)

MEASUREMENTS AND ADJUSTMENTS

ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ADJUSTMENT

1. Set volume control to maximum.
2. Set band switch to MW or FM ST.
3. Set radio on switch to ON or OFF.
4. Set ambience switch to OFF.
5. Set low boost switch to OFF.
4. Set power source voltage to 15V DC.
5. Output of signal generator should be no higher than necessary to obtain an output reading.

AM ADJUSTMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMMETER or OSCILLOSCOPE)	ADJUSTMENT POINT	REMARKS
CONNECTIONS	FREQUENCY				
● AM-IF ADJUSTMENT					
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	459kHz 30% Mod. at 400Hz	Point of non-interference.(on/ about 600kHz)	Headphones Jack (16 ~ 32Ω) (Fabricate the plug as shown in Fig.5 and then connect the lead wires of the plug to the measuring instrument.)	T3 (AM IFT)	Adjust for maximum output.
● MW-RF ADJUSTMENT					
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	511kHz (EB/GN) 516kHz(EG)	Tuning capacitor fully closed.	"	T4 (MW OSC coil)	Adjust for maximum output.
"	1650kHz(EB/GN) 1636kHz(EG)	Tuning capacitor fully open.	"	CT1-3 (MW OSC Trimmer)	Adjust for maximum output.
"	550kHz	Tune to signal	"	[*1] L5 (MW ANT coil)	Adjust for maximum output. Adjust L5 by moving coil bobbin along ferrite core.
"	1500kHz	"	"	CT1-4 (MW ANT Trimmer)	Adjust for maximum output.
[*1] Fix antenna coil with wax after completing alignment.					

FM ADJUSTMENT

SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT POINT	REMARKS
CONNECTIONS	FREQUENCY				
● FM-IF ADJUSTMENT					
Connect to test point TP4 through ceramic capacitor. Negative side to test point TP5 .	10.7MHz (Sweep)	Point of non-interference.(on/ about 90MHz)	Connect vert. amp. of scope to test point TP3 . Negative side to test point TP2 .	T1 (FM 1st IFT)	Waveform is shown in Fig. 1
"	"	"	"	T2 (FM 2nd IFT)	Waveform is shown in Fig. 2
● FM-RF ADJUSTMENT					
Connect to test point TP1 through FM dummy antenna. Negative side to test point TP5 .	86.2MHz(EB/GN) 87.35MHz(EG)	Variable capacitor fully closed.	Headphones Jack (16 ~ 32Ω) (Fabricate the plug as shown in Fig.5 and then connect the lead wires of the plug to the measuring instrument.)	L4 (FM OSC coil)	[*2] Adjust for maximum output.
	109.2MHz(EB/GN) 108.25MHz(EG)	Variable capacitor fully open.	"	CT1-1 (FM OSC Trimmer)	"
	106 MHz	Tune to signal.	"	CT1-2 (FM ANT Trimmer)	"
[*2] Three output response will be present; proper tuning is the center frequency.					

SEPARATION ALIGNMENT

FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	SPECIFICATION	ADJUSTMENT POINT	REMARKS
98 MHz , 60 dB (CW) Connect to test point TP4 through FM dummy antenna. Negative side to TP5	Fig.6	75.8kHz	VR1	Adjust VR1, for 75.8 kHz ± 400 Hz reading on frequency counter.

■ BATTERY BACK-UP CIRCUIT ADJUSTMENT (NOTE : Disconnect AC power cord)

DC POWER SUPPLY		FREQUENCY COUNTER	ADJUSTMENT POINT	REMARKS
CONNECTIONS	VOLTAGE			
(+) Side..... TP22 (-) Side..... TP21	9 Volts	(+) Side..... TP13 (-) Side..... TP14	VR3 (Semi-fixed)	Adjust VR3 for $2400 \pm 15\text{Hz}$ on frequency counter reading. [*3, 4, 5]

[*3] Connect 1 pF capacitor to the test point **TP13** .
 [*4] Amplify its output signal by using AF Amp.
 [*5] Measure the frequency.

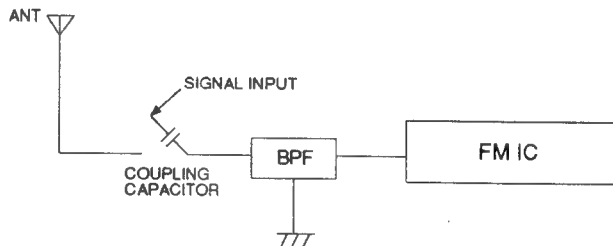
■ TAPE DECK ADJUSTMENT

ITEM	INPUT	EQUIPMENT CONNECTION ELECTRONIC COUNTER	SPECIFICATION	ADJUSTMENT POINT	REMARKS
Azimuth	QZZCFM (8kHz, -20dB)	Headphones Jack (16 ~ 32Ω) (Fabricate the plug as shown in Fig.5 and then connect the lead wires of the plug to the measuring instrument.)	Maximum output	Azimuth screw	Playback mode (Refer to Fig. 3)
Tape speed	QZZCWAT (3kHz, -10dB)	"	$3000 \pm 90\text{Hz}$	Speed adjustment screw	Playback mode (Refer to Fig. 4)

■ FM DATA MEASUREMENT

Note: The FM IC (Mixer) has to be isolated from the antenna when doing FM measurement.

- (1) De-soldered one connection of coupling capacitor that is connected to the antenna.
- (2) Input the signal directly to the coupling capacitor.
- (3) Solder back the capacitor after the data has been taken.



■ ADJUSTMENT POINTS

Please refer to Circuit Board and Wiring Connection Diagram for test points location.

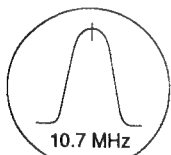


Fig. 1



Fig. 2

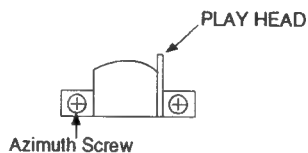


Fig.3

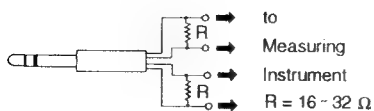


Fig. 5

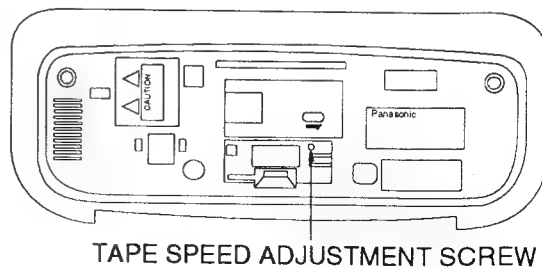
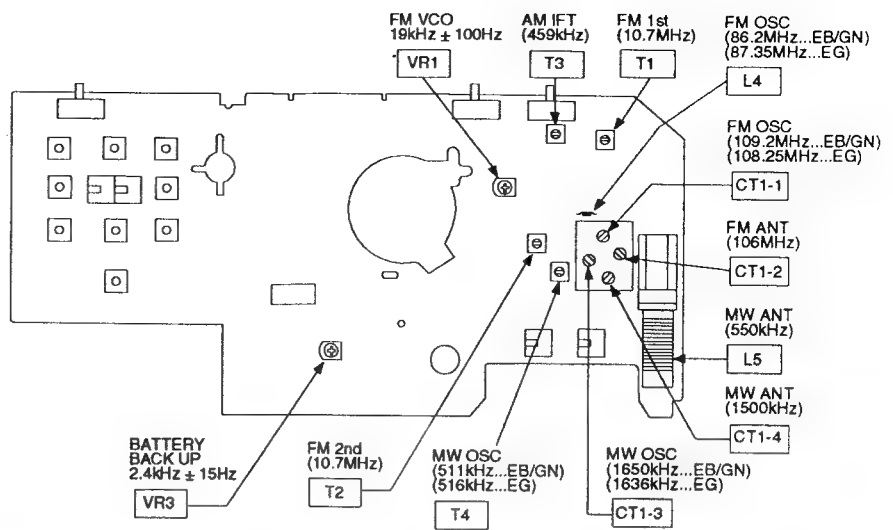
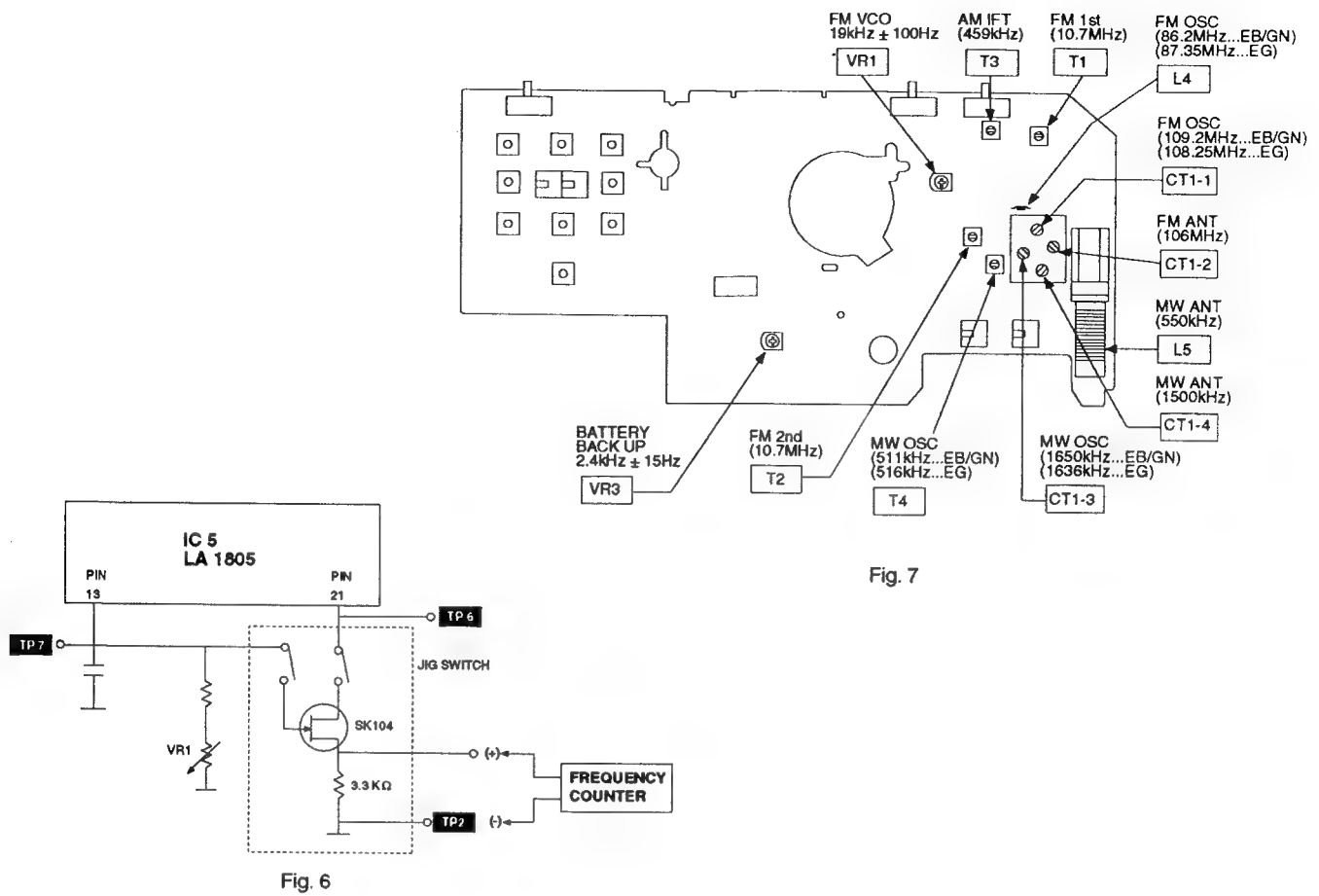


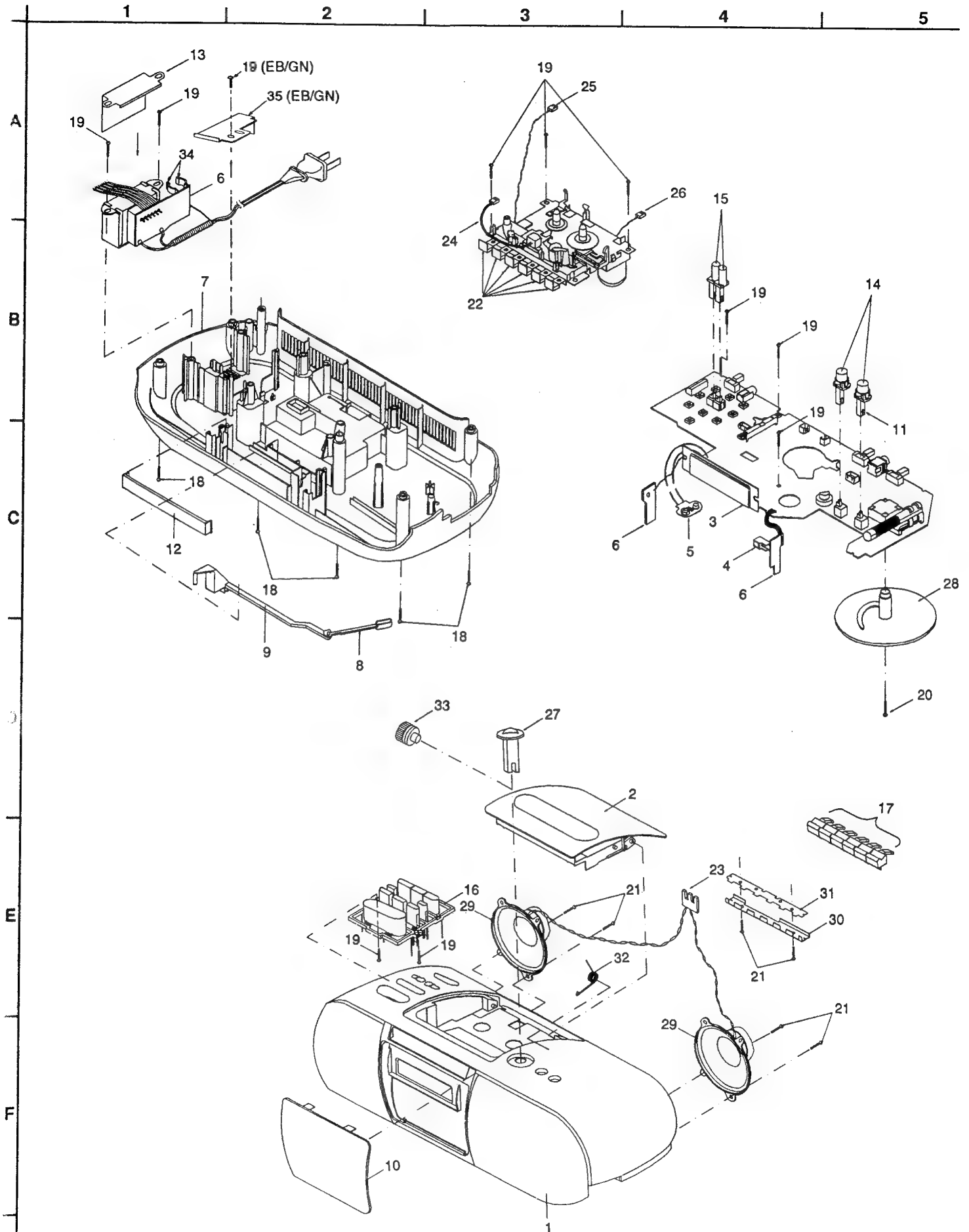
Fig. 4



■ TERMINAL GUIDE OF IC'S, TRANSISTORS & DIODES



LM8562 	BA3312N 	RVIBA6433 	AN7205 	LA1805 	RVILA4192
BU4066B 	2SA564RTA 2SA952LTA 2SC1684RTA 2SC1684STA 2SC2001KTA 		BA1L4LTA 	RVD1S133TA RVD1SR35TR 	RVDMTZ6R8BTA
SLR33MC70F08 	RVDSL55VR 				


■ CABINET PARTS LOCATION






REPLACEMENT PARTS LIST

Notes:

- * Important safety notice:
Components identified by  mark have special characteristics important for safety.
Furthermore, special parts which have purpose of fire-retardant (resistors), high quality sound (capacitors), low noise (resistors), etc. are used.
When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
- * The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area)
Parts without these indications can be used for all areas.
- *  Indicates in the Remarks columns indicates parts supplied by MESA.

Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks
				34	RJF28ZA	FUSE HOLDER	
		CABINET & CHASSIS		35	RMVX0007	AC CORD SHIELD	[M] (EB/GN)
						INTEGRATED CIRCUIT(S)	
1	RFKKRCX260P	TOP CABINET ASS'Y	[M]				
2	RFKLRCX260P	CASS LID ASS'Y	[M]				
3	SL204227TG	LED DISPLAY	[M] (EB/GN)	IC1	LM8562	IC, CLOCK LSI	[M]
3	SL204230TG	LED DISPLAY	[M] (EG)	IC2	BA3312N	IC, PRE/REC AMP	
4	RMNX0001-K	LED HOLDER	[M]	IC3	RVIBA6433	IC, AMBIENCE	
5	RJB5009WA-1	BATTERY SNAP	[M]	IC4	AN7205	IC, FM RF	
6	RJBX0013B	PCB, LED/POWER	[M] (EG)	IC5	LA1805	IC, MPX	[M]
6	RJBX0013C	PCB, LED/POWER	[M] (EB/  GN)	IC6	RVILA4192	IC, POWER AMP	[M]
7	RFKHCX260EGK	BOTTOM CABINET ASS'Y	[M] (EG)	IC7	BU4066B	IC, SWITCHING	
7	RFKHCX260EBK	BOTTOM CABINET ASS'Y	[M] (EB)			IC PROTECTOR(S)	
7	RFKHCX260GNK	BOTTOM CABINET ASS'Y	[M] (GN)				
8	RMLX0005	TUNING LINKAGE	[M]				
9	RGJX0005-W	POINTER	[M]	ICP	RAHICPN10TA	IC PROTECTOR	
10	RKWX0014B-K	DIAL PANEL	[M] (EG)			TRANSISTOR(S)	
10	RKWX0014A-K	DIAL PANEL	[M] (EB)				
10	RKWX0014-K	DIAL PANEL	[M] (GN)				
11	RMUX0003	BUTTON SHAFT	[M]	Q1	2SA952LTA	TRANSISTOR	[M]
12	RMQX0004	LIGHT REFLECTOR	[M]	Q2	2SC1684RTA	TRANSISTOR	
13	RSCX0007	SHIELD PLATE	[M]	Q3	2SC2001KTA	TRANSISTOR	
14	RGUX0017-H	BUTTON, AMBIENCE/BASS BOOST	[M]	Q5	2SC2001KTA	TRANSISTOR	
15	RGUX0018-H	BUTTON, ALARM ON/OFF	[M]	Q6	2SA564RTA	TRANSISTOR	
16	RGUX0019-H	BUTTON, FUNCTION	[M]	Q7	2SC1684RTA	TRANSISTOR	
17	RGUX0020-H	BUTTON, MECHA	[M]	Q8	2SC1684STA	TRANSISTOR	
18	XTV3+20G-M	SCREW	[M]	Q9	2SC1684STA	TRANSISTOR	
19	XTV3+12G-M	SCREW		Q10	2SC1684STA	TRANSISTOR	
20	XYN26+C8	SCREW		Q11	2SC1684STA	TRANSISTOR	
21	XTV3+8G-M	SCREW		Q12	2SC1684RTA	TRANSISTOR	
22	RMQX0001-1	MECHA SPACER	[M]	Q13	2SC1684STA	TRANSISTOR	
23	REXX0021-2	WIRE ASS'Y, SPEAKER	[M]	Q14	2SA564RTA	TRANSISTOR	
24	REXX0022-1	WIRE ASS'Y, HEAD	[M]	Q15	2SA564RTA	TRANSISTOR	
25	REXX0023	WIRE ASS'Y, LEAF SWITCH	[M]	Q16	2SC1684STA	TRANSISTOR	
26	REXX0024	WIRE ASS'Y, MOTOR	[M]	Q17	BA1L4LTA	TRANSISTOR	[M]
27	RGWX0007-H	KNOB, VOLUME	[M]			DIODE(S)	
28	RGXX0007-H	KNOB, TUNING	[M]				
29	EAS8P143JC3	WOOFER	[M]				
30	RMAX0006	ANGLE BAR	[M]	D1	RVDSL555VR	LED	[M]
31	RHR3390YA	MECHA BUTTON SEAT	[M]	D2	SLR33MC70F08	LED	[M]
32	RMBX0005	EJECT SPRING	[M]	D3	SLR33MC70F08	LED	[M]
33	RDG5874ZB	DAMPER GEAR	[M]	D201	RVD1SS133TA	DIODE	

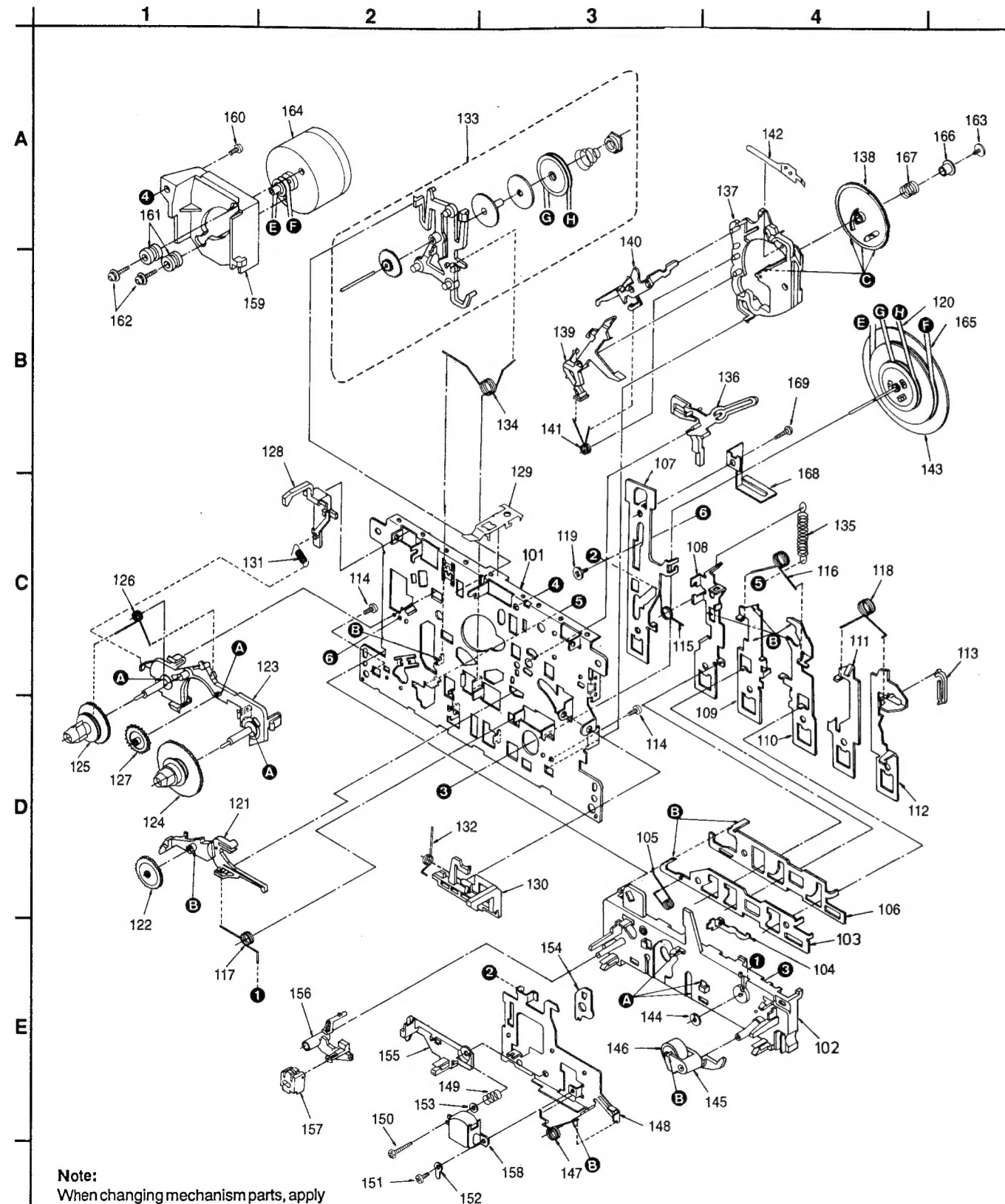
Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks
D202	RVD1SS133TA	DIODE				FILTER(S)	
D205	RVD1SS133TA	DIODE					
D301	RVD1SS133TA	DIODE		CF1	RVF107WDZT	FM CF	
D302	RVD1SS133TA	DIODE		CF2	RVFSFU459B	AM CF	[M] (EB/EG)
D303	RVD1SS133TA	DIODE		CF2	RVFSFU455B	AM CF	(GN)
D304	RVD1SS133TA	DIODE				FUSE(S)	
D305	RVD1SS133TA	DIODE					
D306	RVD1SS133TA	DIODE					
D307	RVD1SS133TA	DIODE		F1	XBA2C08TR0	FUSE	
D308	RVD1SS133TA	DIODE				SWITCH(ES)	
D309	RVD1SS133TA	DIODE					
D310	RVD1SS133TA	DIODE					
D401	RVD1SR35TR	DIODE		S1	EVQ21405R	SW, TIME SET(REV)	
D402	RVD1SR35TR	DIODE		S2	EVQ21405R	SW, TIME SET(FAST)	
D403	RVD1SR35TR	DIODE		S3	EVQ21405R	SW, TIME SET(FWD)	
D404	RVD1SR35TR	DIODE		S4	EVQ21405R	SW, ALARM 1 DISPLAY/ADJ	
D405	RVD1SR35TR	DIODE		S5	EVQ21405R	SW, ALARM 2 DISPLAY/ADJ	
D406	RVD1SR35TR	DIODE		S6	EVQ21405R	SW, SLEEP	
D407	RVD1SR35TR	DIODE		S7	EVQ21405R	SW, OFF	
D408	RVD1SS133TA	DIODE		S8	EVQ21405R	SW, RADIO ON	
D410	RVDMTZ6R8BTA	DIODE		S9	EVQ21405R	SW, DOZE	
		VARIABLE RESISTOR(S)		S10	ESB6483	SW, ALARM 1	[M]
				S11	ESB6483	SW, ALARM 2	[M]
VR1	EVNDXAA00B14	VR, FM MPX VCO		S12	ESB6483	SW, AMBIENCE	[M]
VR2	EVJVCFA15A54	VR, VOL. CONTROL	[M]	S13	ESB6483	SW, LOW BOOST	[M]
VR3	EVNDXAA00B25	VR, CLK BACK UP OSC		S14	RSS3B31ZA-H	SW, BAND	[M]
		VARIABLE CAPACITOR(S)		S15	RSS2B66ZA-H	SW, BRIGHTNESS	[M]
				S16	RSS2A56ZA-H	SW, BEAT PROOF	[M]
VC1	RCV4PCT0V-R	VC, TRIMMER	(GN)	S17	RSH2F18ZA-A	SW, REC	
VC1	RCV4LCT0V-R	VC, TRIMMER	(EG/EB)	S18	RFA105ZA	SW, MOTOR	[M]
		COIL(S) & TRANSFORMER(S)				JACK(S)	
				JK1	RJD3M9ZA-H	JACK, MIC	[M]
L2	RLQY30S1W	COIL, BPF	[M]	JK2	RJD7S2YA-C	JACK, HP	
L4	RL04Y209-E	COIL, FM OSC	[M]			CONNECTOR(S)	
L5	RLV2C005-0Z	COIL, AM ANT	[M]				
L101	RL09B17-T	COIL, BIAS OSC		CP1	RJS7I5ZA	CONNECTOR(7P)	
T1	RLI4B153-M	FM IF		CP2	RJP2G4YA	CONNECTOR(2P)	
T2	RLI4B153-M	FM IF		CP3	RJP3G4YA	CONNECTOR(3P)	
T3	RLI2B471-M	AM IF	[M]	CP4	RJP4G18ZA	CONNECTOR(4P)	
T4	RL02B105-M	AM OSC		CP5	RJP2G4YA	CONNECTOR(2P)	
T401	RTP1K2E001-V	POWER TRANSFORMER	[M] (EG) 				
T401	RTP1K2B001-V	POWER TRANSFORMER	[M] (EB/GN) 				

Ref No.	Part No.	Part Name & Description	Remarks
D202	RVD1SS133TA	DIODE	
D205	RVD1SS133TA	DIODE	
D301	RVD1SS133TA	DIODE	
D302	RVD1SS133TA	DIODE	
D303	RVD1SS133TA	DIODE	
D304	RVD1SS133TA	DIODE	
D305	RVD1SS133TA	DIODE	
D306	RVD1SS133TA	DIODE	
D307	RVD1SS133TA	DIODE	
D308	RVD1SS133TA	DIODE	
D309	RVD1SS133TA	DIODE	
D310	RVD1SS133TA	DIODE	
D401	RVD1SR35TR	DIODE	
D402	RVD1SR35TR	DIODE	
D403	RVD1SR35TR	DIODE	
D404	RVD1SR35TR	DIODE	
D405	RVD1SR35TR	DIODE	
D406	RVD1SR35TR	DIODE	
D407	RVD1SR35TR	DIODE	
D408	RVD1SS133TA	DIODE	
D410	RVDMTZ6R8BTA	DIODE	
		VARIABLE RESISTOR(S)	
VR1	EVNDXAA00B14	VR, FM MPX VCO	
VR2	EVJVCAF15A54	VR, VOL. CONTROL	[M]
VR3	EVNDXAA00B25	VR, CLK BACK UP OSC	
		VARIABLE CAPACITOR(S)	
VC1	RCV4PCT0V-R	VC, TRIMMER	(GN)
VC1	RCV4LCT0V-R	VC, TRIMMER	(EG/EB)
		COIL(S) & TRANSFORMER(S)	
L2	RLQY30S1W	COIL, BPF	[M]
L4	RL04Y209-E	COIL, FM OSC	[M]
L5	RLV2C005-0Z	COIL, AM ANT	[M]
L101	RL09B17-T	COIL, BIAS OSC	
T1	RLI4B153-M	FM IF	
T2	RLI4B153-M	FM IF	
T3	RLI2B471-M	AM IF	[M]
T4	RL02B105-M	AM OSC	
T401	RTP1K2E001-V	POWER TRANSFORMER	[M] (EG) ⚠
T401	RTP1K2B001-V	POWER TRANSFORMER	[M] (EB/GN) ⚠

Ref No.	Part No.	Part Name & Description	Remarks
		FILTER(S)	
CF1	RVF107WDZT	FM CF	
CF2	RVFSFU459B	AM CF	[M] (EB/EG)
CF2	RVFSFU455B	AM CF	(GN)
		FUSE(S)	
F1	XBA2C08TR0	FUSE	⚠
		SWITCH(ES)	
S1	EVQ21405R	SW, TIME SET(REV)	
S2	EVQ21405R	SW, TIME SET(FAST)	
S3	EVQ21405R	SW, TIME SET(FWD)	
S4	EVQ21405R	SW, ALARM 1 DISPLAY/ADJ	
S5	EVQ21405R	SW, ALARM 2 DISPLAY/ADJ	
S6	EVQ21405R	SW, SLEEP	
S7	EVQ21405R	SW, OFF	
S8	EVQ21405R	SW, RADIO ON	
S9	EVQ21405R	SW, DOZE	
S10	ESB6483	SW, ALARM 1	[M]
S11	ESB6483	SW, ALARM 2	[M]
S12	ESB6483	SW, AMBIENCE	[M]
S13	ESB6483	SW, LOW BOOST	[M]
S14	RSS3B31ZA-H	SW, BAND	[M]
S15	RSS2B66ZA-H	SW, BRIGHTNESS	[M]
S16	RSS2A56ZA-H	SW, BEAT PROOF	[M]
S17	RSH2F18ZA-A	SW, REC	
S18	RFA105ZA	SW, MOTOR	[M]
		JACK(S)	
JK1	RJD3M9ZA-H	JACK, MIC	[M]
JK2	RJJD7S2YA-C	JACK, HP	
		CONNECTOR(S)	
CP1	RJS7T5ZA	CONNECTOR(7P)	
CP2	RJP2G4YA	CONNECTOR(2P)	
CP3	RJP3G4YA	CONNECTOR(3P)	
CP4	RJP4G18ZA	CONNECTOR(4P)	
CP5	RJP2G4YA	CONNECTOR(2P)	

[illegible]

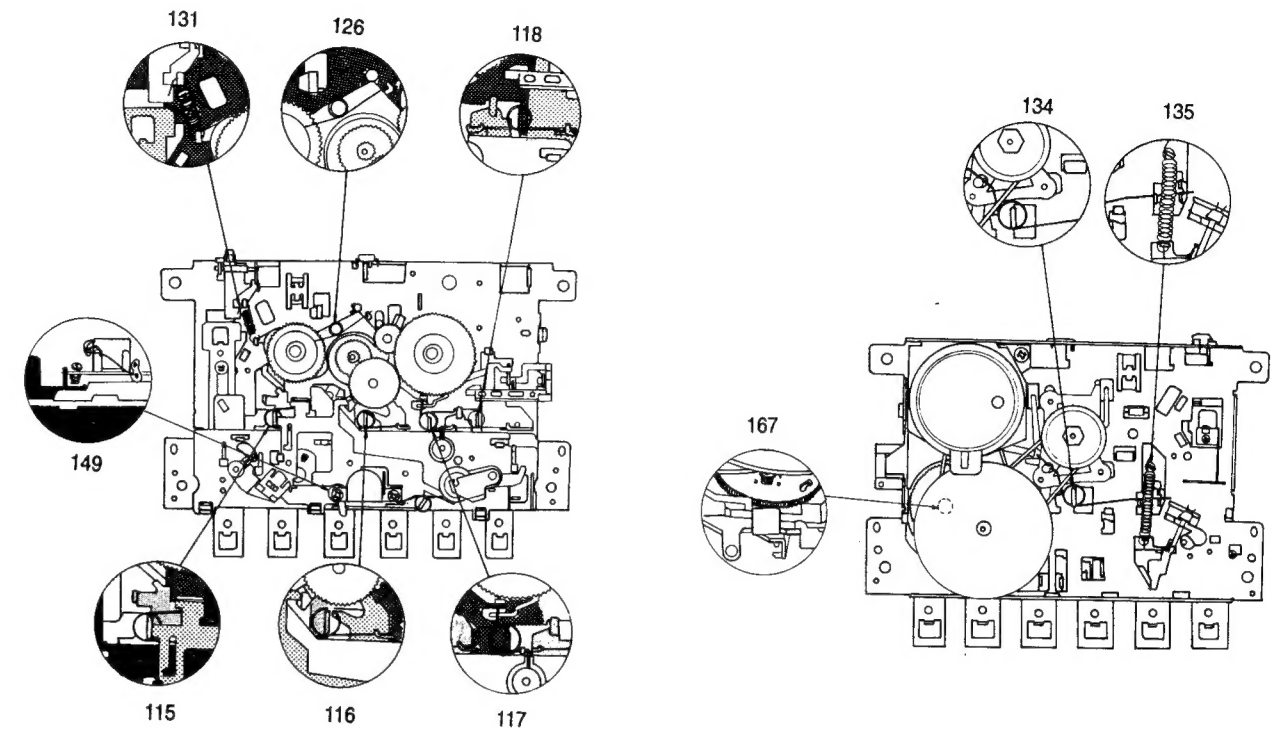
MECHANISM PARTS LOCATION (RAA2203)



Note:
When changing mechanism parts, apply the specified grease to areas marked as shown in the drawing.

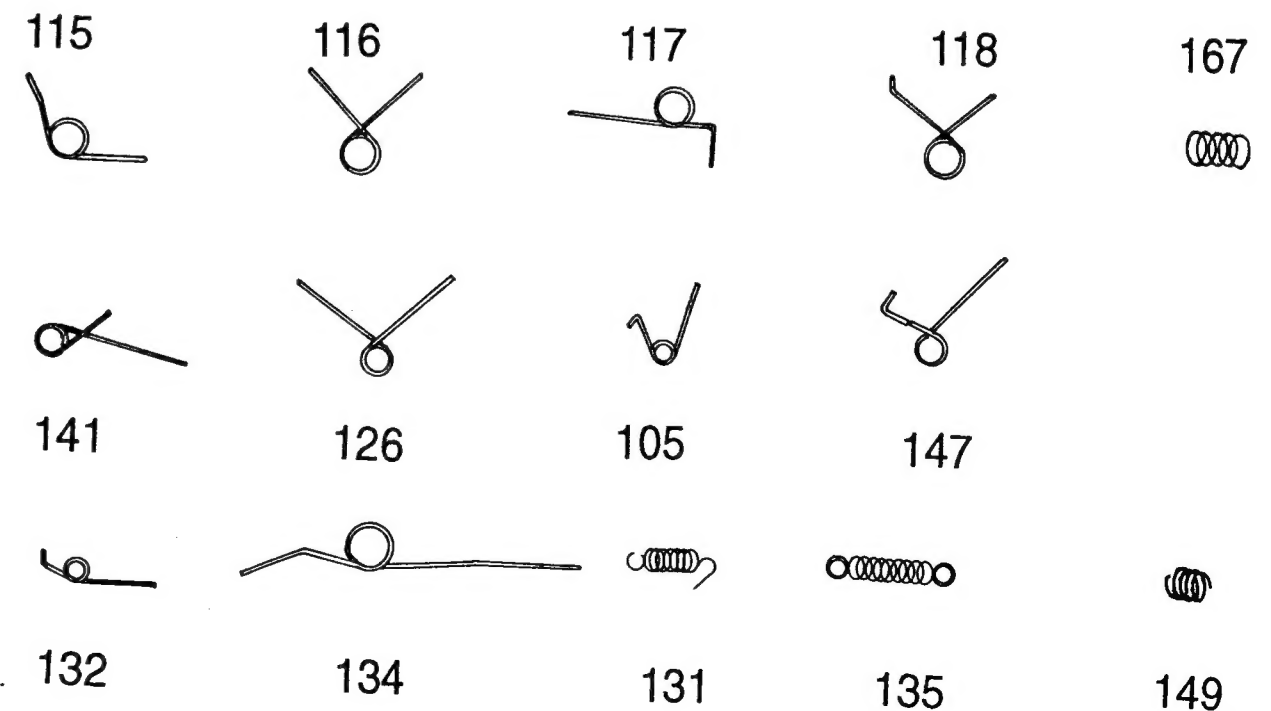
Ref. No.	Part Name	Part No.
A	FLOIL G311S	SZZ0L26
B	MOLYKOTE EM30L	SZZ0L30
C	MOLYKOTE EM50L	SZZ0L25

SPRING LOCATION



SPRING ILLUSTRATION













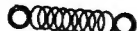

- The illustration shows the actual size of the springs so it can be used to check their shapes.
(The illustration shows the springs separated from the mechanism).



Ref.	
101	
102	
103	
104	
105	
106	
107	
108	
109	
110	
111	
112	
113	
114	
115	
116	
117	
118	
119	
120	
121	
122	
123	
124	
125	
126	
127	
128	
129	
130	
131	
132	
133	
134	
135	
136	
137	
138	
139	
140	
141	
142	
143	
144	
145	
146	
147	
148	
149	
150	
151	

MECHANISM PARTS LIST



115	116	117	118	167
				
				
141	126	105	147	
				
132	134	131	135	149

Ref. No.	Part No.	Part Name & Description	Remarks
101	RFU204ZA	CHASSIS	[M]
102	RFU205ZA	FRAME ASS'Y	[M]
103	RFY1011ZA	FUNCTION PLATE	[M]
104	RFY1012ZA	ARM	[M]
105	RFS927ZA	SPRING	[M]
106	RFY1013ZA	LEVER	[M]
107	RFY1014ZA	LEVER	[M]
108	RFY1015ZA	LEVER	[M]
109	RFY1016ZA	LEVER	[M]
110	RFY1017ZA	LEVER	[M]
111	RFY1018ZA	LEVER	[M]
112	RFY1019ZA	LEVER	[M]
113	RFY1020ZA	ARM	[M]
114	RFE564ZA	SCREW	[M]
115	RFS928ZA	SPRING	[M]
116	RFS929ZA	SPRING	[M]
117	RFS930ZA	SPRING	[M]
118	RFS931ZA	SPRING	[M]
119	RFE565ZA	SCREW	[M]
120	RFB120ZA	BELT	[M]
121	RFY1021ZA	ARM	[M]
122	RFG161ZA	IDLER	[M]
123	RFU206ZA	SPINDLE BASE	[M]
124	RFJ97ZA	TAKE UP REEL ASS'Y	[M]
125	RFJ98ZA	SUPPLY REEL	[M]
126	RFS932ZA	SPRING	[M]
127	RFG162ZA	IDLER	[M]
128	RFY1022ZA	INTER LOCK	[M]
129	RFS933ZA	SPRING	[M]
130	RFY1023ZA	LEVER	[M]
131	RFS934ZA	SPRING	[M]
132	RFS935ZA	SPRING	[M]
133	RFK31ZA	PF IDLER ASS'Y	[M]
134	RFS937ZA	SPRING	[M]
135	RFS938ZA	SPRING	[M]
136	RFY1024ZA	SENSOR	[M]
137	RFU207ZA	AS BASE	[M]
138	RFG163ZA	GEAR	[M]
139	RFY1025ZA	LEVER	[M]
140	RFY1026ZA	LEVER	[M]
141	RFS939ZA	SPRING	[M]
142	RFY1027ZA	SPRING PLATE	[M]
143	RFP88ZA	FLYWHEEL ASS'Y	[M]
144	RFN230ZA	WASHER	[M]
145	RFY1028ZA	ARM	[M]
146	RFR72ZA	PINCH ROLLER	[M]
147	RFS940ZA	SPRING	[M]
148	RFU208ZA	HEAD BASE	[M]
149	RFS941ZA	SPRING	[M]
150	RFE566ZA	SCREW	[M]
151	RFE309ZA	SCREW	

RESISTORS & CAPACITORS

Notes :

- * Capacitor values are in microfarads (μF) unless specified otherwise, P=Pico-farads (pF) F=Farads
- * Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).
- * Bracketed indications in Ref. No. columns specify the area (Refer to the first page for area).

Parts without these indications can be used for all areas.

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS						CAPACITORS
R1	ERDS2TJ220T	22 1/4W	R213	ERDS2TJ223T	22K 1/4W	R425	ERDS2TJ8R2T	8.2 1/4W
R2	ERDS2TJ470T	47 1/4W	R214	ERDS2TJ224T	220K 1/4W	R426	ERDS2TJ474T	470K 1/4W
R3	ERDS2TJ101T	100 1/4W	R215	ERDS2TJ332T	3.3K 1/4W	R427	ERDS2TJ101T	100 1/4W
R5	ERDS2TJ101T	100 1/4W	R216	ERDS2TJ104T	100K 1/4W	R429	ERDS2TJ332T	3.3K 1/4W
R7	ERDS2TJ103T	10K 1/4W	R217	ERDS2TJ472T	4.7K 1/4W	R430	ERDS2TJ222T	2.2K 1/4W
R8	ERDS2TJ681T	680 1/4W	R218	ERDS2TJ151T	150 1/4W	R431	ERDS2TJ221T	220 1/4W
R9	ERDS2TJ153T	15K 1/4W	R220	ERDS2TJ221T	220 1/4W	R432	ERDS2TJ334T	330K 1/4W
R10	ERDS2TJ104T	100K 1/4W	R221	ERDS2TJ822T	8.2K 1/4W	R433	ERDS2TJ103T	10K 1/4W
R11	ERDS2TJ563T	56K 1/4W	R223	ERDS2TJ103T	10K 1/4W	R434	ERDS2TJ221T	220 1/4W
R12	ERDS2TJ183T	18K 1/4W	R301	ERDS2TJ121T	120 1/4W	R435	ERDS2TJ222T	2.2K 1/4W
R13	ERDS2TJ562T	5.6K 1/4W	R302	ERDS2TJ181T	180 1/4W			
R14	ERDS2TJ470T	47 1/4W	R303	ERDS2TJ222T	2.2K 1/4W			
R101	ERDS2TJ103T	10K 1/4W	R304	ERDS2TJ222T	2.2K 1/4W			
R102	ERDS2TJ224T	220K 1/4W	R305	ERDS2TJ222T	2.2K 1/4W	C1	ECBT1H680J5	68P 50V
R103	ERDS2TJ222T	2.2K 1/4W	R306	ERDS2TJ103T	10K 1/4W	C2	ECBT1H100JC5	10P 50V
R104	ERDS2TJ562T	5.6K 1/4W	R307	ERDS2TJ103T	10K 1/4W	C3	ECBT1H100JC5	10P 50V
R105	ERDS2TJ560T	56 1/4W	R308	ERDS2TJ103T	10K 1/4W	C4	ECBT1H102KB5	0.001 50V
R106	ERDS2TJ222T	2.2K 1/4W	R309	ERDS2TJ103T	10K 1/4W	C5	ECBT1H4R7KC5	4.7P 50V
R107	ERDS2TJ103T	10K 1/4W	R310	ERDS2TJ223T	22K 1/4W	C6	ECBT1H240J5	24P 50V [M]
R108	ERDS2TJ102T	1K 1/4W	R311	ERDS2TJ104T	100K 1/4W	C7	ECBT1H102KB5	0.001 50V
R109	ERDS2TJ104T	100K 1/4W	R316	ERDS2TJ472T	4.7K 1/4W	C8	ECBT1H330J5	33P 50V
R110	ERDS2TJ102T	1K 1/4W	R317	ERDS2TJ222T	2.2K 1/4W	C9	ECBT1H200JC5	20P 50V
R111	ERDS2TJ822T	8.2K 1/4W	R318	ERDS2TJ334T	330K 1/4W	C10	ECBT1C103MS5	0.01 16V
R112	ERDS2TJ822T	8.2K 1/4W	R319	ERDS2TJ223T	22K 1/4W	C11	ECBT1H180JC5	18P 50V
R113	ERDS2TJ223T	22K 1/4W	R320	ERDS2TJ103T	10K 1/4W	C12	ECBT1H102KB5	0.001 50V
R114	ERDS2TJ224T	220K 1/4W	R321	ERDS2TJ470T	47 1/4W	C14	ECBT0J223NS5	0.022 6.3V
R115	ERDS2TJ332T	3.3K 1/4W	R323	ERDS2TJ680T	68 1/4W	C15	ECBT1H102KB5	0.001 50V
R116	ERDS2TJ104T	100K 1/4W	R324	ERDS2TJ680T	68 1/4W	C16	ECBT1H470J5	47P 50V
R117	ERDS2TJ472T	4.7K 1/4W	R325	ERDS2TJ332T	3.3K 1/4W	C17	ECBT0J223NS5	0.022 6.3V
R118	ERDS2TJ151T	150 1/4W	R328	ERDS2TJ332T	3.3K 1/4W	C18	ECEA1EU220B	22 25V
R120	ERDS2TJ221T	220 1/4W	R401	ERDS2TJ222T	2.2K 1/4W	C19	ECBT0J223NS5	0.022 6.3V
R121	ERDS2TJ822T	8.2K 1/4W	R402	ERDS2TJ104T	100K 1/4W	C20	ECBT0J223NS5	0.022 6.3V
R123	ERDS2TJ103T	10K 1/4W	R403	ERDS2TJ104T	100K 1/4W	C21	ECQP1H152JZ3	1500P 50V [M]
R201	ERDS2TJ103T	10K 1/4W	R404	ERDS2TJ102T	1K 1/4W	C22	ECEA1HU3R3B	3.3 50V
R202	ERDS2TJ224T	220K 1/4W	R405	ERDS2TJ273T	27K 1/4W	C23	ECEA1HU3R3B	3.3 50V
R203	ERDS2TJ222T	2.2K 1/4W	R407	ERDS2TJ222T	2.2K 1/4W	C24	ECBT1H471KB5	470P 50V
R204	ERDS2TJ562T	5.6K 1/4W	R408	ERDS2TJ273T	27K 1/4W	C25	ECFR1C473MR	0.047 16V
R205	ERDS2TJ560T	56 1/4W	R409	ERDS2TJ562T	5.6K 1/4W	C26	ECBT0J153MS5	0.015 6.3V
R206	ERDS2TJ222T	2.2K 1/4W	R410	ERDS2TJ222T	2.2K 1/4W	C27	ECEA0JU101B	100 6.3V
R207	ERDS2TJ103T	10K 1/4W	R411	ERDS2TJ221T	220 1/4W	C28	ECBT0J223NS5	0.022 6.3V
R208	ERDS2TJ102T	1K 1/4W	R415	ERDS2TJ474T	470K 1/4W	C29	ECEA0JU221B	220 6.3V
R209	ERDS2TJ104T	100K 1/4W	R416	ERDS2TJ104T	100K 1/4W	C30	ECBT0J223NS5	0.022 6.3V
R210	ERDS2TJ102T	1K 1/4W	R419	ERDS2TJ102T	1K 1/4W	C31	ECBT1H6R8KC5	6.8P 50V
R211	ERDS2TJ822T	8.2K 1/4W	R420	ERDS2TJ222T	2.2K 1/4W	C32	ECEA1HU010B	1 50V
R212	ERDS2TJ822T	8.2K 1/4W	R421	ERDS2TJ332T	3.3K 1/4W	C33	ECEA1HK010B	1 50V
			R422	ERDS2TJ681T	680 1/4W	C34	ECEA1HUR47B	0.47 50V
			R423	ERDS2TJ273T	27K 1/4W	C35	ECBT1H102KB5	0.001 50V
			R424	ERDS2TJ101T	100 1/4W	C36	ECBT1H681KB5	680P 50V

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C101	ECBT1H331KB5	330P 50V	C309	ECBT1C103NS5	0.01 16V			
C102	ECBT1H102KB5	0.001 50V	C401	ECKR1H103ZF5	0.01 50V (EBGN)			
C103	ECEA1AU470B	47 10V	C401	ECEA1HN010SB	1 50V (EG)			
C104	ECFR1C223MR	0.022 16V	C402	ECKR1H103ZF5	0.01 50V			
C105	ECEA1CU100B	10 16V	C403	ECKR1H103ZF5	0.01 50V			
C106	ECBT1C332MR5	3300P 16V	C404	ECKR1H103ZF5	0.01 50V			
C107	ECBT0J223NS5	0.022 6.3V	C405	ECKR1H103ZF5	0.01 50V			
C108	ECBT1C103MS5	0.01 16V	C406	ECKR1H103ZF5	0.01 50V			
C111	ECEA1HU010B	1 50V	C407	ECKR1H103ZF5	0.01 50V			
C112	ECEA1HU010B	1 50V	C408	ECEA1CU222E	2200 16V			
C113	ECKR1H102KB5	0.001 50V	C409	ECEA1CU471B	470 16V			
C114	ECFR1C683MR	0.068 16V	C410	ECKR1H103ZF5	0.01 50V			
C115	ECEA1HU010B	1 50V	C411	ECEA1AU220B	22 10V			
C116	ECEA1HU010B	1 50V	C412	ECEA1AU101B	100 10V			
C117	ECEA1HU010B	1 50V	C417	ECBT0J223NS5	0.022 6.3V			
C118	ECBT1H102KB5	0.001 50V	C421	ECEA1HU010B	1 50V			
C119	ECFR1C683MR	0.068 16V	C424	ECEA1HU010B	1 50V			
C120	ECEA1AU101B	100 10V	C427	ECEA1CU100B	10 16V			
C121	ECEA1AU220B	22 10V	C428	ECEA1CU101B	100 16V			
C122	ECEA1AU471B	470 10V	C429	ECEA1AU101B	100 10V			
C201	ECBT1H331KB5	330P 50V	C430	ECKR1H103MD5	0.01 50V			
C202	ECBT1H102KB5	0.001 50V	C431	ECCR1H181K5	180P 50V			
C203	ECEA1AU470B	47 10V	C432	ECQP1272JZ	2700P 100V			
C204	ECFR1C223MR	0.022 16V	C433	ECEA0JU221B	220 6.3V			
C205	ECEA1CU100B	10 16V	C434	ECFR1C223MR	0.022 16V			
C206	ECBT1C332MR5	3300P 16V	C435	ECBT1C103MS5	0.01 16V			
C207	ECBT0J223NS5	0.022 6.3V	C436	ECEA1HK3R3B	3.3 50V			
C208	ECBT1C103MS5	0.01 16V	C437	ECEA1HU0R1B	0.1 50V			
C211	ECEA1HU010B	1 50V	C438	ECFR1C223MR	0.022 16V			
C212	ECEA1HU010B	1 50V	C439	ECEA1EU4R7B	4.7 10V			
C213	ECKR1H102KB5	0.001 50V	C440	ECEA1HU3R3B	3.3 50V			
C214	ECFR1C683MR	0.068 16V	C441	ECBT0J153MS5	0.015 6.3V			
C215	ECEA1HU010B	1 50V	C442	ECEA1HU010B	1 50V			
C216	ECEA1HU010B	1 50V	C443	ECBT1C103NS5	0.01 16V			
C217	ECEA1HU010B	1 50V	C444	ECEA0JU101B	100 6.3V			
C218	ECBT1H102KB5	0.001 50V	C446	ECEA1CU470B	47 16V			
C219	ECFR1C683MR	0.068 16V	C447	ECBT1H471KB5	470P 50V			
C220	ECEA1AU101B	100 10V	C448	ECBT1C103NS5	0.01 16V			
C221	ECEA1AU220B	22 10V	C451	ECEA0JU221B	220 6.3V			
C222	ECEA1AU471B	470 10V						
C301	ECBT1H102KB5	0.001 50V						
C302	ECBT1C103NS5	0.01 16V						
C303	ECFR1C104MR	0.1 16V						
C304	ECQP1H152JZ3	1500P 50V [M]						
C305	ECBT1C103NS5	0.01 16V						
C306	ECBT1C103NS5	0.01 16V						
C307	ECBT1C103NS5	0.01 16V						
C308	ECBT1C103NS5	0.01 16V						